

REMARKS

Claims 1-26 are pending in the application. Claims 1-26 are rejected. Claims 11-25 have been cancelled.

Claim 1 has been amended to include the ‘water dispersible’ limitation of claim 2. Claims 2-5, 10 and 26 have been amended for clarity. Specifically, claims 10 and 26 have been amended to depend from claim 1. Accordingly, no new matter is introduced by these amendments.

Reply to the Rejection of Claims 2-9, 11-17 and 19-25 under 35 U.S.C. § 112, 2nd paragraph

The Examiner has rejected claim 2-9, 11-17 and 19-25 as being indefinite allegedly due to the recitation that the copolymer is anionic at a pH “above about 4” (*i.e.*, due to the use of the term ‘about’).

Regarding the term ‘about’, use of such term as recited in claims 2-9, 11-17 and 19-25 is permissible patent claiming practice (*see*, MPEP 2173.05(b)). Those claims define the lower limit at which the copolymer is anionic. One skilled in the art would understand the upper limit to be up to pH 14. Accordingly, claims 2-9, 11-17 and 19-25 are not indefinite.

It is believed that these remarks overcome the Examiner’s rejection of claims 2-9, 11-17 and 19-25 under 35 U.S.C. § 112, 2nd paragraph. Withdrawal, therefore, of this rejection is respectfully requested.

Reply to the Rejection of Claims 1, 8-10, 17, 18, 25 and 26 under 35 U.S.C. § 102(a)

The Examiner has rejected Claims 1, 8-10, 17, 18, 25 and 26 as being anticipated by the *Cosmetics and Toiletries* article entitled “Acrylates/C12-22 Alkylmethacrylate Copolymer (Allianz™ OPT): A New Polymer for Sunscreen Water Resistance through Oil Phase Thickening” by Mark E. Rerek and Lisa M. Elton (“Rerek”). For the following reasons, Applicants respectfully traverse the Examiner’s rejection of claims 1, 8-10, 17, 18, 25 and 26 as being anticipated by Rerek.

Rerek discloses a commercially available acrylates/C₁₂₋₂₂ alkyl methacrylate copolymer (“Allianz™ OPT”) specifically designed to provide structure to oil phases of organic sunscreens.

The polymer of Rerek is a tetrapolymer emulsion polymerization product of methyl methacrylate, butyl acrylate, methacrylic acid and cetyl-eicosinyl methacrylate (p. 1, 'Chemistry' section). Rerek does not teach an acrylate copolymer that is water dispersible. Rather, the cetyl-eicosinyl methacrylate constituent of the copolymer of Rerek would render it water insoluble; hence its application to the oil phase of sunscreen compositions (see p. 1, 'Rheology' section). In contrast, the copolymers of the present invention are water dispersible and therefore can be added to the water phase of a personal care composition. Accordingly, as Rerek does not teach or suggest water dispersible acrylate copolymers, Rerek cannot be said to anticipate the presently claimed invention.

For at least these reasons, claims 1, 8-10, 17, 18, 25 and 26 are not anticipated by Rerek. Withdrawal, therefore, of the rejection of claims 1, 8-10, 17, 18, 25 and 26 under 35 U.S.C. § 102(a) is respectfully requested.

Reply to the Rejection of Claims 1, 8-10, 17, 18, 25 and 26 under 35 U.S.C. § 102(b)

The Examiner has rejected Claims 1, 8-10, 17, 18, 25 and 26 as being anticipated by U.S. Patent No. 5,853,700 to Gormley *et al.* ("Gormley"). For the following reasons, Applicants respectfully traverse the Examiner's rejection of claims 1, 8-10, 17, 18, 25 and 26 as being anticipated by Gormley.

Gormley discloses hair cosmetic compositions (*e.g.*, hairsprays) containing a water insoluble, polypropylene oxide-modified polydimethyl siloxane block copolymer, a film forming resin, solvent, propellant and water (Abstract). The film forming resins of Gormley includes, for example, copolymers of methyl methacrylate, butyl acrylate and methacrylic acid (col. 4, lines 59-62) as one of several useful copolymers. Gormley states that "[i]n formulation, some of these [film forming] polymers require neutralization with an alkaline reagent to effect solubility or dispersibility into the aqueous delivery system" (col. 4, line 64 – col. 5, 22). Gormley does not specify which polymers require neutralization, but states that the "level of neutralization" will typically range from 5 to 100% (col. 5, lines 4-5). Gormley does not state with specificity whether any of its film forming polymers are water dispersible without neutralization. Secondly, Gormley does not state whether any of its film forming polymers are useful in water proofing. Rather, one skilled in the art understands that a polymer that provides film forming does not

necessarily provide water proofing. Independent claim 1 of the present invention requires that the copolymer provide water proofing. As Gromley does not teach or suggest water proofing, Gromley cannot be said to teach each and every element of the presently claimed invention.

For at least these reasons, claims 1, 8-10, 17, 18, 25 and 26 are not anticipated by Gormley. Withdrawal, therefore, of the rejection of claims 1, 8-10, 17, 18, 25 and 26 under 35 U.S.C. § 102(b) is respectfully requested.

Reply to the Rejection of Claims 2-7, 11-16 and 19-24 under 35 U.S.C. § 103(a)

The Examiner has rejected Claims 2-7, 11-16 and 19-24 as being obvious in view of Rerek. For the following reasons, Applicants respectfully traverse the Examiner's rejection of claims 2-7, 11-16 and 19-24 as being unpatentable over Rerek.

As previously noted, Rerek discloses a tetrapolymer emulsion polymerization product of methyl methacrylate, butyl acrylate, methacrylic acid and cetyl-eicosinyl methacrylate. The Examiner states that the instant specification does not define the term "substantially no hydrophobic monomers of greater than c8" and therefore allows for the cetyl-eicosinyl methacrylate monomer of Rerek. Applicants respectfully disagree and direct the Examiner's attention to p. 3, lines 20-22 of the present Specification wherein acrylate copolymers according to the present invention are described as "exclude[ing] those having more than trace amounts of hydrophobic monomers which contain an alkyl group of greater than or equal to C6, more particularly C8". As such, acrylate copolymers according to the present invention clearly do not include the cetyl-eicosinyl methacrylate monomer of Rerek. Further, as previously stated, Rerek does not teach water-dispersible acrylate copolymers. Rather, the copolymer of Rerek is soluble in the oil phase of a composition for affecting the rheology of that oil phase. Accordingly, the copolymer of Rerek is a different chemistry directed towards a different application.

For at least these reasons, claims 2-7, 11-16 and 19-24 are not rendered obvious by Rerek. Withdrawal, therefore, of the rejection of claims 2-7, 11-16 and 19-24 under 35 U.S.C. § 103(a) is respectfully requested.

The Examiner has also rejected Claims 2-7, 11-16 and 19-24 as being obvious in view of Gormley alone or in view of U.S. Patent No. 5,204,090 to Han ("Han"). For the following

reasons, Applicants respectfully traverse the Examiner's rejection of claims 2-7, 11-16 and 19-24 as being unpatentable over Gormley alone or in view of Han.

Gormley was previously discussed, those arguments incorporated herein. As previously noted, Gormley does not teach acrylate copolymers that provide water proofing, and are water dispersible, particularly without neutralization.

Han is cited for its teaching of waterproof sun care compositions comprising carboxylated acrylic copolymers (col. 3, lines 20-50). Han specifically states that its acrylic copolymers "become water dispersible/soluble via neutralization" (col. 3, lines 26-28), but that it is preferred that they are not neutralized (col. 3, lines 41-45). Accordingly, Han does not teach water dispersible acrylate copolymers that are not neutralized. In light of Han, one skilled in the art would believe that the film forming resins of Gormley must be neutralized in order to be water dispersible. Further, Han's sunscreen formulation requires a second water insoluble emollient/solvent system. Han does not specify which of these two ingredients provide water proofing, but one skilled in the art would believe that both are required in order to provide water proofing. Accordingly, Gormley in combination with Han does not render unpatentable the presently claimed invention.

For at least these reasons, claims 2-7, 11-16 and 19-24 are not rendered obvious by Gormley alone or in view of Han. Withdrawal, therefore, of the rejection of claims 2-7, 11-16 and 19-24 under 35 U.S.C. § 103(a) is respectfully requested.

It is believed that the above remarks and amendments overcome the Examiner's rejection of the claims. It is further believed that the application is now in condition for allowance, and such allowance is respectfully requested.

Respectfully submitted,

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